

REMARKS/ARGUMENTS

Claims 1-38 are pending in the application. Claims 1-38 are under rejection. Claim 32 is amended. No new matter has been added.

1. Rejections of claims 8 and 19 under 35 U.S.C. § 112 as indefinite

The Examiner has rejected claims 8 and 19 as indefinite with regard to the term "low".

Claim 8 (claim 19 is similar), states:

8. The method according to claim 3 wherein said predetermined range includes **low** or loss of fluid flow.

A claim must be analyzed, not in a vacuum, but in light of content of the disclosure, the teachings of the prior art, and the interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. MPEP 2173.05(b); see also W.L. Gore & Associates, Inc. v. Garlock, 721 F.2d 1540 (Fed Cir. 1983).

There are several places in the specification where "low" is discussed (page 8, line 15-19; page 11, line 16; page 22, line 8). The term "low" can be inferred by the specification wherein "low" means "pounding" or "fluid pound". Fluid pound is the situation when less than an optimal amount of fluid is present in the well. (See page 4, first paragraph). The term "low" as it relates to "fluid pound" is also well known in the art. One can refer to the U.S. Patent Application 5,006,044, by Walker (hereinafter referred to as Walker) where fluid pound is also defined as insufficient fluid available to the pump (see Walker, col 10, ln 30-31). Low is therefore definite in relation to the well being filled with enough fluids to prevent fluid pounding.

Therefore one skilled in the art of constructing pump-off controllers would understand the claimed value of "low." Applicant respectfully requests the Examiner to withdraw the rejection of claims 8 and 19 under 35 U.S.C. § 112.

2. Rejections of claims 32-34 under 35 U.S.C. § 102(b) as anticipated by Tubel.

The Examiner has rejected claims 32-34 as anticipated by U.S. Patent 5,732,776 by Tubel (hereinafter referred to as Tubel) under 35 USC 102(b).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Tubel teaches a down hole well production control system wherein the flow sensors are located within the wellbore. (see Tubel, abstract; col 14, ln 60, etc.). The specification discloses above ground sensors: (See specification pg 14, ln 24 to pg 15, ln 23; see also Fig 2).

Applicant has amended claim 32 to recite above ground flow sensor. Claims 33 and 34 depend from claim 32. Since Tubel does not disclose an above ground flow sensor, each and every element in the claim is not found, and the claims are no longer anticipated, and the rejection should be withdrawn.

3. Rejections of Claims #1,3,5,7-10,12,15-21, 24-31, and 35 as anticipated by U.S. Patent 5,006,044, Walker

The Examiner has rejected claims 1, 3, 5, 7-10, 12, 15-21, 24-31, and 35 as anticipated by U.S. Patent 5,006,044 by Walker (hereinafter referred to as Walker).

3a. Rejection of Claims 1, 12, 21, and 35:

With regard to claim 1, the Examiner asserts that "accumulating at least a portion of said flow signals in a memory associated with said local processing system" (emphasis added) is anticipated by Walker which describes a "Z-80" type processor (see Walker, Col 55, ln 13).

The implementation of the computer system in Walker is the functional equivalent of the analog circuitry described in the previous section of Walker (Col 55, ln 6-8, stating "Although the functions set forth are described as being implemented in hardwired circuitry and discrete

electronic components, which is preferred...). Walker's analog circuitry does not accumulate "a portion" of the signal for determining pump off control; rather, the analog circuitry accumulates the entire signal until a threshold is met (see Walker, Figure 10; see also col 52, ln 12-ln 60). Therefore claim 1 of the application is not anticipated by Walker, and the rejection should be withdrawn.

With regard to claim 12, the specification defines the "electronic transport medium" as a "telecommunications link, a laptop computer, a personal data assistant, or a data logging device" (page 7, line 20-21). As discussed previously regarding claim 1, Walker does not have a mechanism "to at least...transfer at least a portion of said accumulated flow signals" and there is no equivalent "electronic transport medium." Walker does disclose serial transmission of data since Fig. 13 is missing from Walker. (see Walker col 55, ln 19-24). Therefore claim 12 of the application is not anticipated by Walker since Walker fails to disclose this element. Therefore, the rejection of claim 12 should be withdrawn.

With regard to claims 21 and 35 like claims 1 and 12, Walker does not process "a portion" of the accumulated flow signals as is claimed. Claims 21 and 35 have analogous limitations to claim 1 and 12, and are not anticipated by Walker for similar reasons. The rejections of claims 21 and 35 should therefore be withdrawn.

3b. Rejections of Claims 3, 5, 7-10, 15-21, and 24-31:

Because claims 3, 5, 7-10, 15-21, and 24-31 depend from a claim shown above not to be anticipated, they are patentable for at least the same reasons, and the rejections should be withdrawn.

4. Rejections of Claims 1-38 under 35 U.S.C. § 103(a) as unpatentable over U.S. Pat. No. 6,937,923 by Bassett (herein referred to as Bassett) in view of U.S. Pat No. 5,006,044 by Walker Sr. and/or in view of 2002/0017399 to Schultz (herein referred to as Schultz)

4a. Rejections of Claims 1, 3, 7-9, 11-12, 16-20, and 21-38

Claims 1, 3, 7-9, 11-12, 16-20, and 21-38 are rejected on grounds that Bassett teaches a closed loop system for down hole pumping. The Bassett patent describes a down-hole pump, flow sensors mounted down hole, a flow controller, and a computer system. (See Bassett Fig. 1). Bassett specifically teaches control of the flow using a variable speed drive with sensors located down hole. This system is specifically designed to solve a problem known as "gas lock" (see Bassett, col 1, ln 26-30; col 7, ln 52). The objective of Bassett is to adjust the pump such that gas does not enter the pump. (see Bassett, col 8, ln 51-52). Inherent in that solution is the need to install down hole sensors.

Walker teaches a pump jack, flow sensors mounted above ground on an in-line check valve, and a processing system that does not filter data (e.g., look at a subset of the data points). (See Walker supra). Walker does not teach a system for monitoring for gas lock, rather, it discloses only a sensor located in-line. (See Walker. Ref. No. 48, Fig 1).

A person skilled in the art would not combine the computer system (e.g., algorithms and associated sensors) of Walker with Bassett. A computer designed to solve pump off control as described in Walker is attempting to monitor low fluid conditions in the well. A computer system as described in Bassett is designed to solve the gas-lock problem which is to prevent pressurized gas from entering the pump. The two problems are fundamentally different and require different algorithms. (see <http://www.glossary.oilfield.slb.com/>, stating that "fluid pound is when the downhole pump rate exceeds the production rate of the well" and that "gas lock is a condition in pumping and processing equipment caused by the induction of free gas"). Therefore the sensors for down hole measurement of gas pressure in Bassett are incompatible with the

sensors used to measure fluid discharge in Walker since they must measure different media (gas v liquid). Accordingly, there could be no reasonable expectation of success in using a fluid discharge sensor as shown in Walker (e.g., in a down hole environment for pump-off purposes), one skilled in the art would not combine Walker with Bassett. Therefore there is no prima facie finding of obviousness and the rejection of claims 1, 3, 7-9, 11-12, 16-20, and 21-38 should be withdrawn.

Claims 2, 4, 6, 11, 13, 14, 22, and 36-38

Claims 2, 4, 6, 11, 13, 14, 22, and 36-38 are rejected on grounds that Bassett teaches the closed loop system for down hole pumping (as described above) but lacks a networked computing system. (See Bassett)

The Schultz reference teaches a down-hole monitoring system connected to a web server for geologic monitoring. The Examiner has combined the two references asserting that the Bassett combined with Shultz would teach a person skilled in the arts how to make a pump-off control system for monitoring and pump-off control.

Both Schultz and Bassett teach systems that are not directed towards pump off control. Bassett, as explained previously, is a controller for systems that encounter gas-lock. The occurrence of gas lock being fundamentally different than fluid pound as for determining pump-off control.

Likewise, Schultz is directed towards a "well monitoring and control system" where the sensors are located in the wellbore (See Schulz, Fig 8).

The application teaches a system for pump-off control that uses a sensor that is mounted in the flow discharge, the flow discharge located on the surface.

Neither Schultz nor Bassett disclose sensors that are located in the flow discharge valve, an element that is essential to the instant application. There would be no reasonable expectation of success to combine the reference of Bassett (down-hole pump controlling for

gas-lock situations) with the reference for Schultz (down hole system monitoring and controlling) to create a surface flow discharge and monitoring system. The rejection of claims 2, 4, 6, 11, 13, 14, 22, and 36-38 should be withdrawn.

Nothing herein should be deemed as a disclaimer or surrender of any rights, acquiescence in any rejection, or a waiver of any arguments that might have been raised but were not raised herein or otherwise in the prosecution of this application. Applicant reserves all rights and subject matter with respect to claims being or to be pursued in this or a related application.

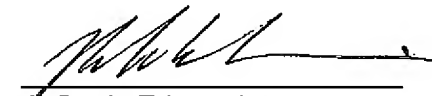
CONCLUSION

Applicant submits that in view of the foregoing remarks and/or amendments, the application is in condition for allowance, and favorable action is respectfully requested.

The Commissioner is hereby authorized to charge any fees, including extension fees, or to charge any additional fees or underpayments, or to credit any overpayments, to the Credit Card account referenced and authorized via the EFS Web, (Electronic Filing System). As an alternative, in case the Credit Card cannot be processed, the Commissioner is hereby authorized to charge any fees, additional fees, or underpayments, or to credit any overpayments, to Deposit Account No. 50-1001.

Respectfully submitted,

Date: 1/31/2008


J. Curtis Edmondson
Registration No. 57,027

GANZ LAW, P.C.
P. O. Box 2200
Hillsboro, Oregon 97123
Telephone: (503) 844-9009
Facsimile: (503) 296-2172
email: mail@ganzlaw.com